

Lampiran 1. Uji Kecukupan dan Keseragaman

1. Uji Kecukupan

	N	N' 1	N' 2	N' 3	N' 4	N' 5	Keterangan
Pre Work Sampling	800	5625	7708	8465	10738	12195	
Work Sampling 1	1600	5473	5625	4930	5704	8146	
Work Sampling 2	2400	4477	4931	5056	5868	5122	
Work Sampling 3	3200	4931	5189	5704	6951	7850	
Work Sampling 4	4000	5473	5954	6621	7850	8147	
Work Sampling 5	4800	4425	4930	5868	6727	5056	OP 1 CUKUP
Work Sampling 6	5600	0	5189	6621	6319	6041	OP 2 CUKUP
Work Sampling 7	6400	0	0	6319	6838	6224	OP 3 & 5 CUKUP
Work Sampling 8	7200	0	0	0	8466	0	
Work Sampling 9	8000	0	0	0	7850	0	OP 4 CUKUP

2. Uji Keseragaman

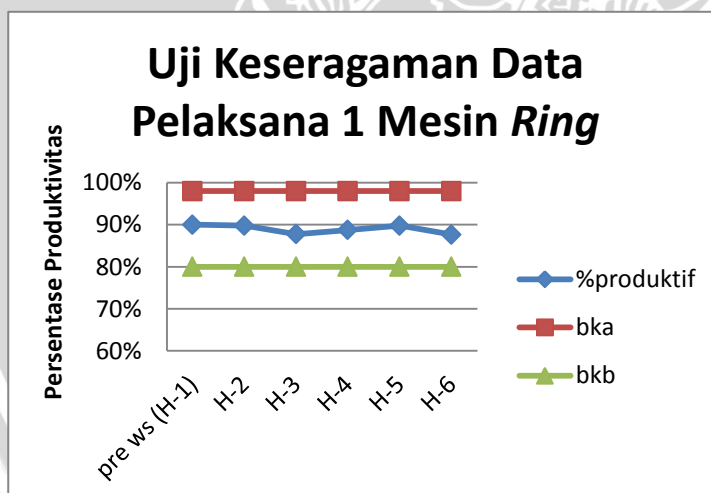
a. Pelaksana 1 mesin Ring

a. Pelaksanaan Penelitian Rung					
Hari	kegiatan	aktivitas	total	%	total pengamatan
pre ws (H-1)	Fatigue	24	80	10	800
	Personal	56			
	non-job	0			
	idle	0			
	SB	614	720	90	
	IR	8			
	GT	0			
	CBS	53			
	PR	12			
	SW	33			
	GR	0			
H-2	Fatigue	40	82	10,25	800
	Personal	28			
	non-job	14			
	idle	0			
	SB	610	718	89,75	
	IR	29			
	GT	0			
	CBS	38			
	PR	16			
	SW	25			
	GR	0			

Hari	kegiatan	aktivitas	total	%	total pengamatan
H-3	Fatigue	50	98	12,25	800
	Personal	48			
	non-job	0			
	idle	0			
	SB	613	702	87,75	
	IR	23			
	GT	0			
	CBS	36			
	PR	13			
	SW	17			
	GR	0			
H-4	Fatigue	46	90	11,25	800
	Personal	44			
	non-job	0			
	idle	0			
	SB	617	710	88,75	
	IR	16			
	GT	0			
	CBS	31			
	PR	20			
	SW	26			
	GR	0			
H-5	Fatigue	43	82	10,25	800
	Personal	39			
	non-job	0			
	idle	0			
	SB	613	718	89,75	
	IR	21			
	GT	0			
	CBS	32			
	PR	20			
	SW	0			
	GR	32			

Hari	kegiatan	aktivitas	total	%	total pengamatan
H-6	Fatigue	61	99	12,375	800
	Personal	38			
	non-job	0			
	idle	0			
	SB	555	701	87,625	
	IR	67			
	GT				
	CBS	64			
	PR	7			
	SW	8			
	GR				

	%produktif	BKA	BKB
Pre WS (H-1)	90%	98%	80%
H-2	90%	98%	80%
H-3	88%	98%	80%
H-4	89%	98%	80%
H-5	90%	98%	80%
H-6	88%	98%	80%



b. Pelaksana 2 mesin *Ring*

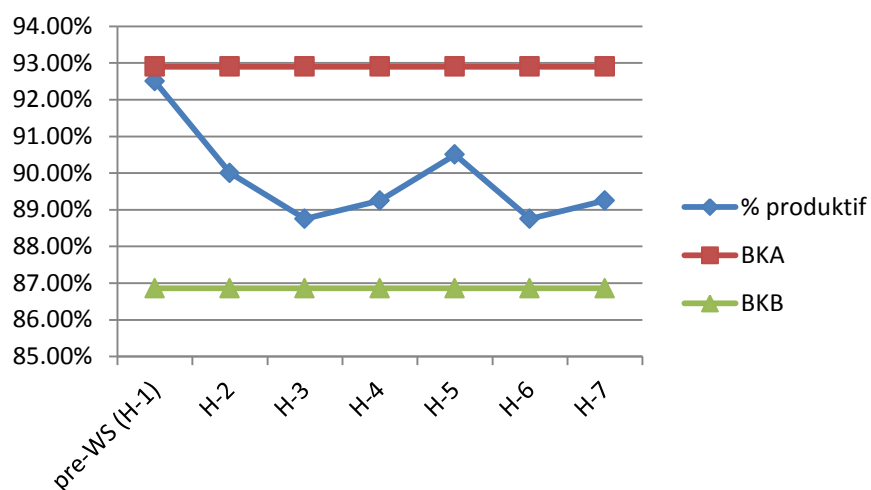
Hari	kegiatan	aktivitas	total	%	total pengamatan
pre ws (H-1)	Fatigue	15	60	0,75	800
	Personal	45			
	non-job	0			
	idle	0			
	SB	543	740	92,5	
	IR	19			
	GT	0			
	CBS	86			
	PR	17			
	SW	28			
	GR	47			
H-2	Fatigue	53	80	10	800
	Personal	27			
	non-job	0			
	idle	0			
	SB	606	720	90	
	IR	16			
	GT	0			
	CBS	32			
	PR	36			
	SW	30			
	GR	0			
H-3	Fatigue	51	90	11,25	800
	Personal	39			
	non-job	0			
	idle	0			
	SB	610	710	88,75	
	IR	30			
	GT	0			
	CBS	20			
	PR	23			
	SW	27			
	GR	0			

Hari	kegiatan	aktivitas	total	%	total pengamatan
H-4	Fatigue	53	86	10,75	800
	Personal	33			
	non-job	0			
	idle	0			
	SB	613	714	89,25	
	IR	26			
	GT	0			
	CBS	50			
	PR	0			
	SW	25			
	GR	0			
H-5	Fatigue	37	76	9,5	800
	Personal	39			
	non-job	0			
	idle	0			
	SB	570	724	90,5	
	IR	35			
	GT	37			
	CBS	47			
	PR	0			
	SW	35			
	GR	0			
H-6	Fatigue	77	90	11,25	800
	Personal	13			
	non-job	0			
	idle	0			
	SB	519	710	88,75	
	IR	50			
	GT	0			
	CBS	65			
	PR	53			
	SW	23			
	GR	0			

Hari	kegiatan	aktivitas	total	%	total pengamatan
H6	Fatigue	70	86	10,75	800
	Personal	16			
	non-job	0			
	idle	0			
	SB	531	714	89,25	
	IR	51			
	GT	0			
	CBS	72			
	PR	35			
	SW	25			
	GR	0			

	% produktif	BKA	BKB
Pre-WS (H-1)	92,50%	93%	86,86%
H2	90,00%	93%	86,86%
H3	88,75%	93%	86,86%
H4	89,25%	93%	86,86%
H5	90,50%	93%	86,86%
H6	88,75%	93%	86,86%
H7	89,25%	93%	86,86%

Uji Keseragaman Data Pelaksana 2 Mesin Ring



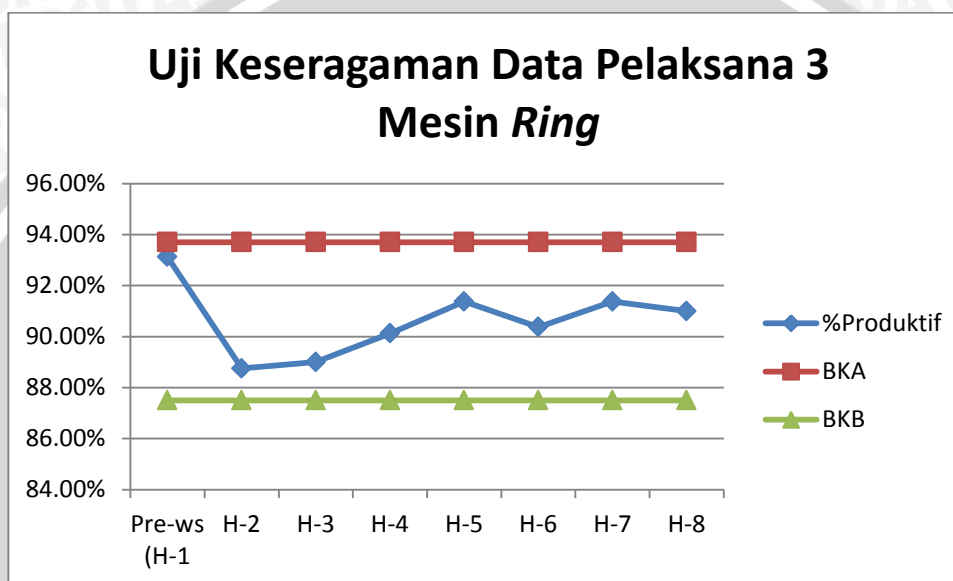
c. Pelaksana 3 mesin *Ring*

Hari	kegiatan	aktivitas	total	%	total pengamatan
pre ws	Fatigue	55	55	6,875	800
	Personal	0			
	non-job	0			
	idle	0			
	SB	629	745	93,125	
	IR	10			
	GT	0			
	CBS	6			
	PR	0			
	SW	100			
	GR	0			
H-1	Fatigue	57	90	11,25	800
	Personal	33			
	non-job	0			
	idle	0			
	SB	603	710	88,75	
	IR	21			
	GT	0			
	CBS	33			
	PR	27			
	SW	26			
	GR	0			
H-2	Fatigue	49	88	11	800
	Personal	39			
	non-job	0			
	idle	0			
	SB	632	712	89	
	IR	37			
	GT	0			
	CBS	13			
	PR	17			
	SW	13			
	GR	0			

Hari	kegiatan	aktivitas	total	%	total pengamatan
H-3	Fatigue	49	88	11	800
	Personal	39			
	non-job	0			
	Idle	0			
	SB	632	712	89	
	IR	37			
	GT	0			
	CBS	13			
	PR	17			
	SW	13			
GR	0				
H-4	Fatigue	53	79	9,875	800
	Personal	26			
	non-job	0			
	idle	0			
	SB	615	721	90,125	
	IR	30			
	GT	0			
	CBS	30			
	PR	26			
	SW	20			
GR	0				
H-5	Fatigue	43	69	8,625	800
	Personal	26			
	non-job				
	idle				
	SB	601	731	91,375	
	IR	35			
	GT	0			
	CBS	28			
	PR	30			
	SW	37			
GR	0				

Hari	kegiatan	aktivitas	total	%	total pengamatan
d. H-6	Fatigue	43	77	9,625	800
	Personal	34			
	non-job	0			
	idle	0			
	SB	522	723	90,375	
	IR	62			
	GT	0			
	CBS	69			
	PR	36			
	SW	34			
	GR	0			
H-7	Fatigue	50	69	8,625	800
	Personal	19			
	non-job	0			
	idle	0			
	SB	494	731	91,375	
	IR	51			
	GT	0			
	CBS	49			
	PR	75			
	SW	62			
	GR	0			
H-8	Fatigue	72	72	9	800
	Personal	0			
	non-job	0			
	idle	0			
	SB	470	728	91	
	IR	77			
	GT	0			
	CBS	70			
	PR	90			
	SW	21			
	GR	0			

	%Produktif	BAK	BKB
Pre-ws (H-1)	93,13%	93,7%	87,5%
H-2	88,75%	93,7%	87,5%
H-3	89%	93,7%	87,5%
H-4	90,13%	93,7%	87,5%
H-5	91,38%	93,7%	87,5%
H-6	90,38%	93,7%	87,5%
H-7	91,38%	93,7%	87,5%
H-8	91,00%	93,7%	87,5%



e. Pelaksana 4 Mesin Ring

Hari	kegiatan	aktivitas	total	%	total pengamatan
pre ws (H-1)	Fatigue	24	44	5,5	800
	Personal	20			
	non-job	0			
	idle	0			
	SB	605	756	94,5	
	IR	47			
	GT	0			
	CBS	57			
	PR	16			
	SW	11			
	GR	20			

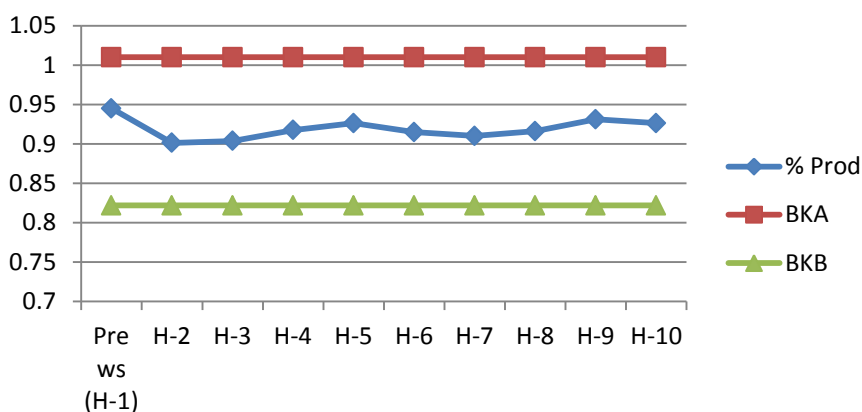
Hari	kegiatan	aktivitas	total	%	total pengamatan
H-2	Fatigue	40	79	9,875	800
	Personal	39			
	non-job	0			
	idle	0			
	SB	613	721	90,125	
	IR	20			
	GT	0			
	CBS	28			
	PR	19			
	SW	22			
	GR	19			
H-3	Fatigue	35	77	9,625	800
	Personal	42			
	non-job	0			
	idle	0			
	SB	610	723	90,375	
	IR	34			
	GT	0			
	CBS	30			
	PR	23			
	SW	26			
	GR	0			
H-4	Fatigue	41	66	8,25	800
	Personal	25			
	non-job	0			
	idle	0			
	SB	612	734	91,75	
	IR	35			
	GT	0			
	CBS	35			
	PR	30			
	SW	22			
	GR	0			
H-5	Fatigue	26	59	7,375	800
	Personal	33			
	non-job	0			
	idle	0			
	SB	570	741	92,625	
	IR	40			
	GT	0			
	CBS	53			
	PR	37			
	SW	41			
	GR	0			

Hari	kegiatan	aktivitas	total	%	total pengamatan
H-6	Fatigue	54	68	8,5	800
	Personal	14			
	non-job				
	idle				
	SB	555	732	91,5	
	IR	46			
	GT	0			
	CBS	45			
	PR	60			
	SW	26			
	GR	0			
H-7	Fatigue	57	72	9	800
	Personal	15			
	non-job				
	idle				
	SB	555	728	91	
	IR	56			
	GT	0			
	CBS	34			
	PR	47			
	SW	36			
	GR	0			
H-8	Fatigue	35	67	8,375	800
	Personal	32			
	non-job				
	idle				
	SB	477	733	91,625	
	IR	69			
	GT	0			
	CBS	85			
	PR	68			
	SW	34			
	GR	0			
H-9	Fatigue	40	55	6,875	800
	Personal	15			
	non-job	0			
	idle	0			
	SB	499	745	93,125	
	IR	59			
	GT	0			
	CBS	65			
	PR	75			
	SW	47			
	GR	0			

Hari	kegiatan	aktivitas	total	%	total pengamatan
H-10	Fatigue	42	59	7,375	800
	Personal	17			
	non-job	0			
	idle	0			
	SB	536	741	92,625	
	IR	57			
	GT	0			
	CBS	77			
	PR	71			
	SW	0			
	GR	0			

	% Prod	BKA	BKB
Pre ws (H-1)	0,945	1,01	0,822
H-2	0,90125	1,01	0,822
H-3	0,90375	1,01	0,822
H-4	0,9175	1,01	0,822
H-5	0,92625	1,01	0,822
H-6	0,915	1,01	0,822
H-7	0,91	1,01	0,822
H-8	0,91625	1,01	0,822
H-9	0,93125	1,01	0,822
H-10	0,92625	1,01	0,822

Uji Keseragaman Data Pelaksana 4 Mesin Ring



d. Pelaksana 4 Mesin *Ring*

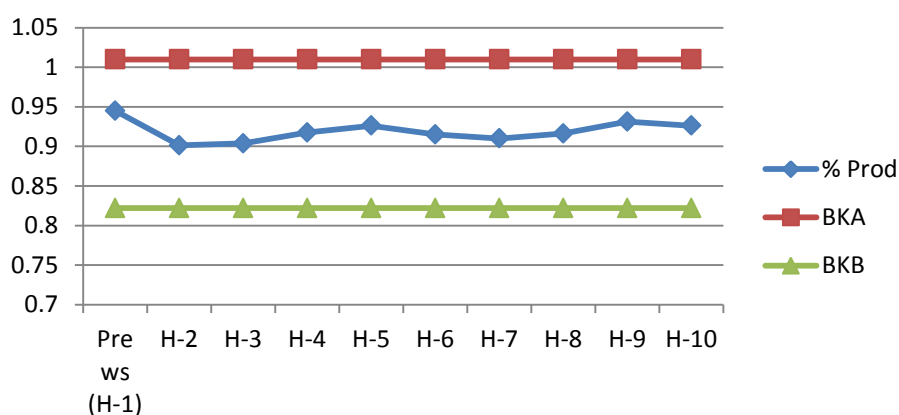
Hari	kegiatan	aktivitas	total	%	total pengamatan
pre ws (H-1)	Fatigue	39	39	4,875	800
	Personal	0			
	non-job	0			
	idle	0			
	SB	568	761	95,125	
	IR	18			
	GT	0			
	CBS	122			
	PR	0			
	SW	53			
	GR	0			
H-2	Fatigue	41	57	7,125	800
	Personal	16			
	non-job				
	idle				
	SB	604	743	92,875	
	IR	30			
	GT	0			
	CBS	38			
	PR	32			
	SW	23			
	GR	16			
H-3	Fatigue	50	87	10,875	800
	Personal	37			
	non-job				
	idle				
	SB	612	713	89,125	
	IR	31			
	GT	0			
	CBS	23			
	PR	27			
	SW	20			
	GR	0			

Hari	kegiatan	aktivitas	total	%	total pengamatan
H-4	Fatigue	21	59	7,375	800
	Personal	38			
	non-job	0			
	idle	0			
	SB	590	741	92,625	
	IR	31			
	GT	0			
	CBS	60			
	PR	39			
	SW	21			
	GR	0			
H-5	Fatigue	38	57	7,125	800
	Personal	19			
	non-job	0			
	idle	0			
	SB	575	743	92,875	
	IR	42			
	GT	0			
	CBS	66			
	PR	23			
	SW	37			
	GR	0			
H-6	Fatigue	58	88	11	800
	Personal	30			
	non-job	0			
	idle	0			
	SB	528	712	89	
	IR	42			
	GT	0			
	CBS	53			
	PR	52			
	SW	37			
	GR	0			
H-7	Fatigue	59	75	9,375	800
	Personal	16			
	non-job	0			
	idle	0			
	SB	524	725	90,625	
	IR	50			
	GT	0			
	CBS	71			
	PR	49			
	SW	31			
	GR	0			

Hari	kegiatan	aktivitas	total	%	total pengamatan
H-8	Fatigue	58	73	9,125	800
	Personal	15			
	non-job	0			
	idle	0			
	SB	512	727	90,875	
	IR	35			
	GT	0			
	CBS	64			
	PR	65			
	SW	51			
	GR	0			

	%Prod	BAK	BKB
pre ws (H-1)	0,95125	1	0,819
H-2	0,92875	1	0,819
H-3	0,89125	1	0,819
H-4	0,92625	1	0,819
H-5	0,92875	1	0,819
H-6	0,89	1	0,819
H-7	0,90625	1	0,819
H-8	0,90875	1	0,819

Uji Keseragaman Data Pelaksana 4 Mesin Ring



e. Pelaksana 5 Mesin *Ring*

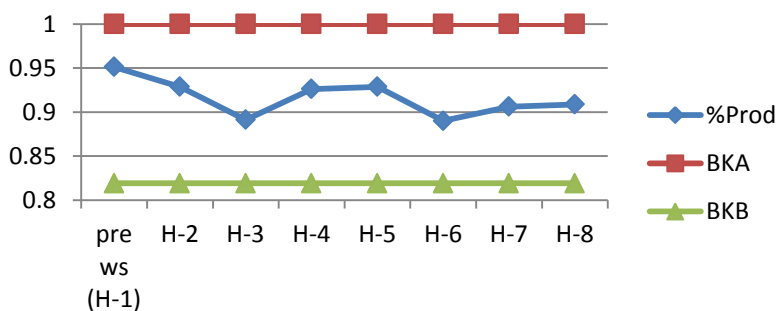
Hari	kegiatan	aktivitas	total	%	total pengamatan
pre ws (H-1)	Fatigue	39	39	4,875	800
	Personal	0			
	non-job	0			
	idle	0			
	SB	568	761	95,125	
	IR	18			
	GT	0			
	CBS	122			
	PR	0			
	SW	53			
	GR	0			
H-2	Fatigue	41	57	7,125	800
	Personal	16			
	non-job				
	idle				
	SB	604	743	92,875	
	IR	30			
	GT	0			
	CBS	38			
	PR	32			
	SW	23			
	GR	16			
H-3	Fatigue	50	87	10,875	800
	Personal	37			
	non-job				
	idle				
	SB	612	713	89,125	
	IR	31			
	GT	0			
	CBS	23			
	PR	27			
	SW	20			
	GR	0			

Hari	kegiatan	aktivitas	total	%	total pengamatan
H-4	Fatigue	21	59	7,375	800
	Personal	38			
	non-job	0			
	idle	0			
	SB	590	741	92,625	
	IR	31			
	GT	0			
	CBS	60			
	PR	39			
	SW	21			
	GR	0			
H-5	Fatigue	38	57	7,125	800
	Personal	19			
	non-job	0			
	idle	0			
	SB	575	743	92,875	
	IR	42			
	GT	0			
	CBS	66			
	PR	23			
	SW	37			
	GR	0			
H-6	Fatigue	58	88	11	800
	Personal	30			
	non-job	0			
	idle	0			
	SB	528	712	89	
	IR	42			
	GT	0			
	CBS	53			
	PR	52			
	SW	37			
	GR	0			

Hari	kegiatan	aktivitas	total	%	total pengamatan
H-7	Fatigue	59	75	9,375	800
	Personal	16			
	non-job	0			
	idle	0			
	SB	524	725	90,625	
	IR	50			
	GT	0			
	CBS	71			
	PR	49			
	SW	31			
	GR	0			
H-8	Fatigue	58	73	9,125	800
	Personal	15			
	non-job	0			
	idle	0			
	SB	512	727	90,875	
	IR	35			
	GT	0			
	CBS	64			
	PR	65			
	SW	51			
	GR	0			

	%Prod	BKA	BKB
pre ws (H-1)	0,95125	1	0,819
H-2	0,92875	1	0,819
H-3	0,89125	1	0,819
H-4	0,92625	1	0,819
H-5	0,92875	1	0,819
H-6	0,89	1	0,819
H-7	0,90625	1	0,819
H-8	0,90875	1	0,819

Uji Keseragaman Data Pelaksana 5 Mesin Ring



UNIVERSITAS BRAWIJAYA



Lampiran 2. Tabel Rekomendasi Allowances ILO

No	Allowances	Conditions	% Allowance	Keterangan
A1	Personal		5	Constant Allowance
A2	Basic Fatigue		4	
B1	Standing Allowance		2	
B2	Abnormal Position Allowance	Slightly Awkward	0	Variable Allowance
B3	Use of muscular energy	10 pounds	1	
B4	Bad Light	Well Below	2	
B5	Atmospheric condition		4	
B6	Close Attention	Fine	2	
B7	Noise Level	Continous	0	
B8	Mental Strain	Complex attention	4	
B9	Monotony	medium	1	
B10	Tediousness	Rather	0	

